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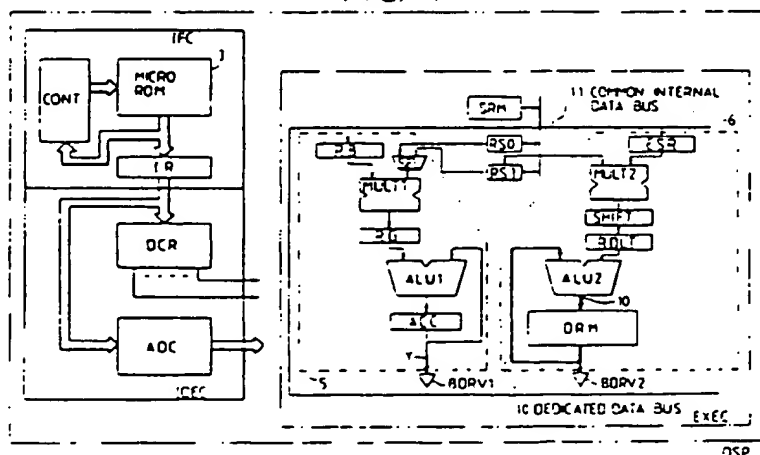
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09.03.94 Bulletin 94/10(71) Applicant: HITACHI, LTD.
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(54) Arithmetic circuit, and adaptive filter and echo canceler using it.

(57) In the digital signal processor used for realizing application filters, the filter output calculation processing system 5 and the tap coefficient update calculation processing system 6 are separated. In the update calculation processing system 6, the integrating calculation for the tap coefficient updating that requires read and write operations on the data memory DRM is performed in one machine cycle by

using the dedicated data bus 10 and executing the read-modify-write operation on the data memory. As a result, to the extent that the time taken by the integrating processing which has conventionally required two machine cycles can be shortened, the operation clock frequency can be lowered to reduce the power consumption while maintaining the processing capability per unit of time.

FIG. 1





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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
X A	WO-A-86 02181 (MOTOROLA INC) 10 April 1986 * page 1, line 15 - page 2, line 16; figure 1 *	1 2-14	G06F15/78 G06F7/544
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 January 1994	Examiner Michel, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background () : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date () : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A	US-A-4 491 910 (E. CAUDEL) 1 January 1985 * abstract; claim 1 * -----		
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 January 1994	Examiner Michel, T
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